



Stony Brook University Hospital
 Environmental Health & Safety
 Policy & Procedure Manual



Title: Manual Material Handling				
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POLICY: Stony Brook University Hospital has developed this program to protect employees from the hazards of improper lifting techniques and overexertion during manual material handling. This program has the following objectives:

1. Ensuring employees are not required to frequently and consistently manually lift materials greater than 50 pounds as part of their job functions;
2. Ensuring that employees do not lift greater than 50 pounds without human or mechanical assistance;
3. Assisting in identifying, assessing, and controlling risks associated with manual handling tasks;
4. Reducing the incidence of manual handling injuries; and
5. Establishing an effective system for manual handling.

SCOPE: Hospital-wide

PROCEDURES:

I. Responsibilities

A. **Environmental Health and Safety (EH&S)** has overall responsibility for program implementation and shall perform the following, as requested:

1. Evaluate material handling tasks,
2. Provide training, and
3. Assist in selection of appropriate assist devices.

B. Each **Department** shall be responsible to:

1. Identify operations which involve lifting or material handling tasks that may place individuals at risk for back or other injuries,
2. Institute engineering controls to reduce manual lifting injury potential,
3. Ensure that all affected employees are trained in the appropriate requirements of this program,
4. Provide training in proper material handling as needed, and
5. Provide employees with human assistance or lift assisting devices as necessary.

- C. **Supervisors** shall be responsible to:
1. Ensure affected employees who frequent and consistent lift are trained,
 2. Ensure that employees use proper lifting techniques,
 3. Make assistance available to employees who manually handle or lift 50 pounds or greater,
 4. Contact EH&S for assistance in equipment selection, evaluations, and training, and
 5. Ensure all employees who experience work-related injuries follow appropriate procedures.
- D. **Employee** shall be responsible for:
1. Attend any required training,
 2. Use proper lifting and material handling techniques as outlined in this policy,
 3. Limit manual lifting or handling tasks to objects less than 50 pounds,
 4. Get assistance whenever manual handling or lifting materials that are 50 pounds or greater, and
 5. Report injuries within 24 hours of their occurrence.

II. Principles of Proper Lifting

Whether it is during leisure activities or as a part of paid work, everyone lifts, holds, carries, pushes and pulls on a daily basis. Manual material handling involves lifting light, heavy and awkward objects. Safe lifting is a critical aspect of daily activities and should be the focus of any manual material handling. Before you lift, remember the following:

- Use lift assist devices (hand dollies, carts, lift tables, forklifts),
 - Wear supportive shoes,
 - Carry all movements out horizontally (e.g., push and pull rather than lift and lower),
 - Reduce the size of the material to keep it light, compact and safe to grasp,
 - Always use your body weight and not your feet when pushing,
 - Try to have most workplace deliveries placed at hip height,
 - Always keep objects in the comfort zone (between hip and shoulder height),
 - Keep all loads close to and in front of the body,
 - Keep the back aligned while lifting,
 - Maintain the center of balance, and
 - Let the legs do the actual lifting.
- A. **PLAN THE LIFT** prior to lifting as follows:
- Don't lower the material if it must be lifted again,
 - Don't place material on ground unless it has handles up at least 12",
 - Never lift materials that can slide,
 - Size up the load, its weight, shape and position,
 - Determine if the load is too large, too heavy or too awkward to move alone,

- Get help from a coworker or use a mechanical aid device to help with the lift when necessary,
 - Decide on the route to take,
 - Check for any problems or obstacles such as slippery or cluttered floors,
 - Investigate the location where the load is going to be placed in order to anticipate any difficulties, and
 - Always exercise or warm-up the back prior to lifting.
- A. **SQUAT LIFTING** should be done for a majority of all lifts. Squat lifting should be performed as follows:
- Stand as close to the load as possible,
 - Move your feet shoulder width apart,
 - Tighten your stomach muscles so you can tuck your pelvis,
 - Bend at the knees, keeping your back straight and stomach tucked,
 - Get a good firm grip on the load,
 - Hug the load close to the center of your body,
 - Lift smoothly with your legs gradually straightening the knees and hips into a standing position, and
 - Avoid twisting your body as you lift.
- B. **CARRYING LOADS** should be done as follows:
- Keep the load close to the center of your body to take full advantage of the mechanical leverage of your body,
 - Do not change your grip on the load unless it is weight supported,
 - Avoid twisting your body without pivoting your feet at the same time,
 - If you must change direction, move your feet in that direction instead of twisting your trunk in that direction,
 - Make sure you can see over the load,
 - Move carefully toward your destination, and
 - If a heavier load is carried for some distance, consider storing it closer.
- C. **PUSHING LOADS**
- Push a load (i.e., cart, bin) rather than pull,
 - Keep elbows near 90 degrees,
 - Avoid slopes, and
 - Avoid uneven floors.
- D. **UNLOADING OBJECTS** should be done the same way as lifting objects, but in the reverse order as follows:
- Slowly bend your knees to lower the load,
 - Keep your back straight and the weight close to the center of your body,
 - Allow enough room for fingers and toes when the load is set down,
 - Place the load on a bench or table by resting it on the edge and pushing it forward with your arms and body, and
 - Secure the load to ensure that it will not fall, tip over, roll or block someone's way.

- E. **ONE-ARM LOADS** are used when carrying items such as pails or buckets. Lifting and carrying one-arm loads should be performed as follows:
- Bend the knees and at the waist keeping your back straight,
 - Reach for the load,
 - Grasp the handle of the load firmly,
 - Lift with your legs not your shoulders and upper back, and
 - Keep your shoulders level while switching hands regularly to reduce overexertion on one side of the body while carrying the load.
- F. **TEAM LIFTS** are used when objects are too heavy, too large or too awkward for one person to lift. Team lifts should be performed as follows:
- Work with someone of similar build and height, if possible,
 - Choose one person to direct the lift (e.g., “lift on the count of three”),
 - Lift with your legs and raise the load to the desired level at the same time,
 - Always keep the load at the same level while carrying,
 - Move smoothly and in unison, and
 - Set the load down together.
- G. **OVERHEAD LIFTS** should be minimized but if necessary should be conducted as follows:
- When lifting or lowering objects from above the shoulders, lighten the load whenever possible,
 - Stand on something sturdy such as a step stool or platform to decrease the vertical distance, and
 - When you are lowering objects from above the shoulders, slide the load close to your body, grasp the object firmly, slide it down your body and proceed with your move.

III. Mechanical Aids and Proper Design Strategies

Mechanical aids for carrying or moving loads are to be used whenever possible to minimize manual material handling. These mechanical aids include hand trucks, carts, dollies, forklifts, hoists and wheelbarrows. When using carts make sure they have large casters. Even when mechanical aids are used, safe lifting procedures should still be followed by maintaining the natural curvature of the back, using the legs for any lifting that is encountered and avoid twisting the back.

When designing or modifying storage areas, store heavy items between knees and shoulders and avoid placing on floor. Also, lighter items should be stored on top shelves. Whenever possible decrease object/container size, change container shape, and add handles to aid in handling.

IV. Use of Back Belts

Claims have been made that back belts reduce forces on the spine, increase intra-abdominal pressure, remind workers to lift properly, stiffen the spine, and reduce bending motions. Although back belts are being bought and sold under the premise that they reduce the risk of back injury, there is insufficient scientific evidence that

they actually deliver what is promised. The National Institute for Occupational Safety and Health (NIOSH) does not recommend the use of back belts to prevent injuries among workers who have been injured.

Due to information that is currently available, the hospital does not advocate the use of back belts. It is recommended that back belts be provided to employees only by and under the direction of a physician. The procurement of back belts will not be the responsibility of the hospital.

INQUIRIES/REQUESTS:

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RELATED FORMS:**RELATED DOCUMENTS:**

HR0016, Employee Occupational Injury/Illness Reporting